CLAIMS

What is claimed is:

1. . A fluid intake pressure regulating system having a master header connected to first and second fluid discharge lines and being connectable to a pressurized fluid source, said first fluid discharge line being connected to a pump for delivering fluid from the pressurized fluid source, through the pump, and to a secondary header, and said second fluid discharge line being connected to a reserve tank, comprising:

a flow meter connected to the secondary header and being adapted to deliver a signal (A) in response to fluid flow through the header;

a pressure transducer connected to the master header and being adapted to measure the fluid pressure within the master header and deliver a signal (B) responsive to said measured pressure;

a master control valve connectable to the pressurized fluid source and to the master header and being adapted for controlling the fluid passing into the master header;

a secondary control valve positioned in the second fluid discharge line between the master header and the reserve tank and being adapted for controlling fluid passing from the master header and into the reserve tank;

means associated with the reserve tank for measuring the fluid level within the reserve tank and delivering a signal (C) in response to said measurement;

a micro processor having a manual set point and being electronically connected to the flow meter, the pressure transducer, the measuring means, the master control valve and the secondary control valve and being adapted to receive signals (A-C) and deliver controlling signals (D and E) to the master control valve and secondary control valve respectfully and responsively control the fluid pressure entering the pump, maintain the reserve tank in a full condition, and prevent fluid having undesirably high fluid pressure from discharging from the secondary header.

2. A pressure regulating system, as set forth in claim 1, wherein, responsive to receiving a signal (A) from the flow meter indicating fluid flow through the secondary header, the micro processor will compare the pressure signal (B) from the pressure transducer 26 to the manual set point, responsively move the master control valve, and maintain the pressure within the master header below the preselected pressure level of the set point.

3. A pressure regulating system, as set forth in claim 1, wherein , responsive to receiving a signal (C) from the fluid level means indicating a less than full reserve tank and a signal (A) indicating desirable pressure in the first fluid discharge line, the micro processor will deliver a signal (E) to open the secondary control valve and deliver fluid from the master header into the reserve tank.

4. A pressure regulating system, as set forth in claim 4, wherein , responsive to receiving a signal (C) indicating a full reserve tank, the micro processor will deliver a signal (E) to close the secondary control valve.

5. A pressure regulating system, as set forth in claim 4, wherein responsive to a signal (B) indicating the absence of fluid flow through the master header during movement of the master control valve, the secondary control valve will be opened.

6. A pressure regulating system, as set forth in claim 1, including a check valve positioned in the second fluid discharge line between the secondary control valve and the reserve tank and maintaining fluid flow only in a direction from the secondary control valve toward the reserve tank.